

GS 0332 DIV

AMENDMENTS TO THE CLAIMS

The listing below of the claims will replace all prior versions and listings of claims in the present application:

Listing of Claims:

Claims 1 through 167 (canceled)

Claim 168 (previously presented): A transmission system with a shift mechanism for its actuation, said system comprising:

- a selection-shift-passageway layout within which a selector finger can be moved, wherein if a gear is completely engaged the selector finger is arranged within a predetermined shift passageway in a region that is allocated to that gear;

- at least one actuation device for controlling the selector finger;

- at least one position sensor for detecting selector finger position in a selection direction and in a shift direction;

- at least one selector shaft; and

- at least one gear coding device that encodes each engaged gear so that the identity of an engaged gear can be determined independently from an end value of the position sensor that is active when the gear is engaged by the selector finger movement.

Claim 169 (previously presented): A transmission system in accordance with claim 168, wherein the identity of the engaged gear is determined when the selector finger remains in a gear end position.

Claim 170 (previously presented): A transmission system in accordance with claim 169, wherein the identity of the engaged gear is determined by displacing the selector finger at the gear end position.

GS 0332 DIV

Claim 171 (previously presented): A transmission system in accordance with claim 169, wherein the identity of the engaged gear is determined based upon predetermined geometric characteristic values of a shift gate of the transmission while the selector finger remains in its gear end position.

Claim 172 (previously presented): A transmission system in accordance with claim 169, wherein each gear end position is bounded by at least two passageway walls.

Claim 173 (currently amended): A transmission system in accordance with claim 169, wherein while a gear is being engaged, the gear coding device positions the selector finger within a clearance region of the gear end position in a predetermined orientation that characterizes the engaged gear to determine gear identity by establishing the relative position of the selector finger to at least one predetermined point at a boundary defining the gear end position and independent of a final value of the position sensor.

Claim 174 (previously presented): A transmission system in accordance with claim 173, wherein the system includes a characteristic allocation value that correlates the identities of predetermined gears with predetermined positions within the gear end positions.

Claim 175 (currently amended): A transmission system in accordance with claim 168, wherein the gear coding device measures a distance from the selector finger to at least one wall defining the a gear end position.

Claim 176 (previously presented): A transmission system in accordance with claim 168, wherein at least two shift passageways have different passageway widths in the regions of their gear end positions.

GS 0332 DIV

Claim 177 (previously presented): A transmission system in accordance with claim 169, wherein for coding the identity of at least one gear, the selector finger rests within the plane of the selection-shift-passageway layout at one of a top and left position, a top and right position, a bottom and left position, a bottom and right position, and a top position, and at a predetermined distance to left and right boundaries of the gear end position.

Claim 178 (previously presented): A transmission system in accordance with claim 168, wherein the gear-coding device decodes coded gear identities based upon geometric values for the selection-shift-passageway layout.

Claim 179 (currently amended): A transmission system in accordance with claim 168, wherein ~~a~~ the gear identity encoded by the gear coding device represents a redundancy for gear identity information that is generated by the position sensor that senses selector finger movement when the gear is engaged.

Claims 180 through 211 (canceled)

Claim 212 (currently amended): A method for controlling a shift mechanism of a transmission system that includes a selection motor and a shift motor for controlling a selector finger that is movably mounted in a selection-shift-passageway layout with a clearance for the selector finger within the shift passageways in the selection direction for providing and determining the identity of a gear that is engaged in ~~a~~ the transmission system, said method comprising the following steps:

encoding the identity of an engaged gear when that gear is being engaged and in accordance with a predetermined characteristic value by moving the selector finger in a predetermined position range within ~~the~~ a clearance range of the engaged gear end point, wherein to that position range within the clearance

GS 0332 DIV

region range is allocated the identity of the engaged gear in accordance with a predetermined characteristic allocation value; and

decoding the gear identity information at predetermined intervals;

wherein the decoding process is independent of the a final value of a position sensor that follows the movement of the selector finger while the gear is being engaged, and wherein the final value is allocated the position of the selector finger within the selection-shift-passageway layout that the selector finger reached before starting the decoding process; and wherein the engaged gear is maintained during the decoding process.

Claim 213 (new): A method in accordance with claim 212, wherein for decoding the gear identity the selector finger is controlled in the direction of one of the shift passageways and the selection passageway within the gear end points, wherein, using at least one characteristic geometric value, especially at least one characteristic geometric value of a shift gate of the transmission, and using at least one travel distance within the gear end in the shift direction and in the selection direction, the engaged gear is determined in accordance with a predetermined characteristic.

Claims 214 through 217 (canceled)